

# Physical Indicators

Physical	Trophic Status	Ecological Integrity	Recreation	Notes
Lake area			1, B	May be important normalizer
Littoral habitat /woody debris		1	1, F	See NALMS 05 examples
Shoreline features		1	1, B	On-shore, land use or vegetation
Water level variability		1	1, B	Includes rate of change
Basin morphometry	2		1, B	Bathymetry
Characteristics of watershed	2	1		Land use, geology
Access considerations			1, S, B	Beaches, boat ramps
Boating (density, types)			1, B	Also regulations
Water clarity (SDT)	1	1	1, S,B, F	Concern over one time measure
Turbidity/TSS/TVS	2	1	1, S, B, F	Related to but separate from SDT
Color	2			

1 = highest priority    S=swimming    B=boating    F=fishing

# Chemical Indicators

Chemical	Trophic Status	Ecological Integrity	Recreation	Notes
Temperature	1	1	2, S, F	Profiles
Oxygen	1	1	2, F	Profiles, 24-72 hr period
Conductivity	1	1		Important surrogate
TP	1			Top and bottom
TN	2			Top and bottom
Nutrient loading	2			Conc. X flow
pH		1		
Alkalinity		1		
Metals		1		Need specific choices
Sediment contam/toxicity		1		Need specific choices/or tox test
Organics/endo disrupt.		1		Need specific choices

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# Ranking of Biological Indicators

Biological	Trophic Status	Ecological Integrity	Recreation	Notes
E. coli			1, S	Pathogen indicator
Enterococci			1, S	Pathogen indicator
Fecal coliform			1, S	Pathogen indicator
Chl a	1	2	1, S	Concern over one time measure
Phytoplankton comp/abund		2	1, S	Indicators
Paleo-algal assessment	1	1		Longer term picture
Algal Growth Potential	1			Nutrient limitation, growth support
Algal toxins	1	2	1, S	Need specific choices
Macrophyte comp/abund	2	1	1, S, B, F	Includes invasive species
Zooplankton comp/abund		2		
Zooplankton size distribution		2		Potentially important surrogate
Macroinvertebrate comp/abund		1		Littoral, profundal split
Fish composition/abundance		1	1, F	Littoral, pelagic, game, non-game
Fish size or age structure		1	1, F	
Fish condition/parasites/disease		1	1, F	Condition as L:W relation
Fish tissue contam/advisories		1	1, F	Direct measure not part of study?
Bird composition/abundance		3		
Amphibian comp/abund		3		Disfiguration assessment?
Isotopes for trophic level		3		???

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